

Allegheny Mountain Section of the Mathematical Association of America

Allegheny Mountain Newsletter

Seventy-Fifth Anniversary Section Meeting!

Our 2008 Section Meeting will not be just any meeting; it will celebrate our 75th anniversary as an MAA Section! That's right; it was in 1932 when MAA members in the state of Pennsylvania found that having two regional groups worked nicely, and thus the Allegheny Mountain Section (which also includes West Virginia) was formed. Not many sections in the MAA have such a long history as we have, so make plans to join in celebrating this very special event on **April 11-12, 2008**, at the **University of Pittsburgh**, site of our very first meeting as a Section all those years ago.

The 2008 meeting promises a number of excellent invited speakers, a contributed paper session for faculty and student speakers, a pizza party on Friday night, and much more. You will not want to miss Art Benjamin's "mathemagic show" after dinner on Friday night, as well as other special events commemorating our anniversary. Our featured speakers are an especially apt group for this historic (and historical) meeting: MAA Polya Lecturer **Art Benjamin** of Harvey Mudd College, MAA President-Elect **David Bressoud** of Macalester College, and mathematics historian **David Zitarelli** of Temple University.



Meetings like this only come around once every 75 years – don't miss your chance!

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Student Involvement in Mathematics

The MAA is becoming more proactive in fostering undergraduate involvement in mathematical activities, including research. Two recent, key efforts in this direction are MAA's receipt of an NSF grant to provide more funding for undergraduate conferences, and the creation of the new headquarters position of Associate Director for Student Programs

(filled by our Section's our Robert Vallin).

Yet the success of undergraduate involvement is really a "grassroots" endeavor. Our students attend conferences and pursue research because we, their local faculty, encourage them. Very seldom, however, do they have a clear idea of what such activities truly involve until they've already

taken the plunge. To clear up some of this mystery, this newsletter contains reactions to attending conferences written by three undergraduates in our Section. Please share these articles with your own students.

From the Chair: John Thompson, University of Pittsburgh-Johnstown



John Thompson of Pitt-Johnstown, Section Chair

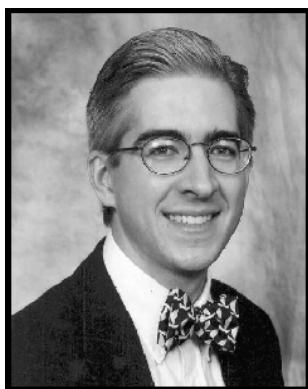
Greetings from atop the Laurel Highlands! I hope the semester is treating you well. As many of you know, our normal progression of Chair-elect to Chair of the section was by-passed because Bud Bowman moved out of the section followed by Bob Valin taking a position in D.C. at MAA headquarters. Thus, I assumed the role of Chair of the section immediately upon my election as Chair at last spring's meeting at Mercyhurst College in Erie. I look forward to working with

many of you as we strive to serve the mathematical community in the Allegheny Mountain Section.

It is the desire of the officers for the section to have a vibrant and productive section. As such, I want to encourage you to participate in the activities of the section. Two of the main activities are the Annual Spring Meeting and Section NExT. Section NExT is a program designed for younger mathematicians. The fall workshop provided the opportunity to learn about

utilizing technology in the classroom. The next workshop will be immediately prior to the Section Spring Meeting in April, which is being held at the University of Pittsburgh. We will be celebrating 75 years as a section. With nationally recognized invited speakers to complement the student and faculty talks, the meeting promises to be quite special. So mark your calendar for **April 11-12**, bring your students, and plan to participate in this exciting celebration.

From the Governor: John Bukowski, Juniata College



John Bukowski of Juniata College, Section Governor

Greetings from Huntingdon! I hope that all of you are enjoying the fall weather and having a good semester. I was pleased to represent the Section at the grand opening celebration of the MAA's Carriage House conference center at their headquarters in Washington, DC, in April. My family and I enjoyed a lovely evening reception, and I attended some good talks. The newly-renovated Carriage House is a beautiful building in a wonderful part of the city. One interesting part of the facility is the patio, which has a "map" of the D.C. area in the concrete floor. In the map, the Potomac and Anacostia Rivers are made of bricks that can be sponsored by people and organizations. At MathFest, MAA President Joe Gallian asked that all Sections be represented by sponsoring a brick. I am pleased to report that, at the October Executive Committee meeting, your Section officers voted to sponsor such a brick, so if

you ever visit the MAA in Washington, you will be able to see the "Allegheny Mountain Section" represented on the patio.

MathFest in San Jose was another great meeting. The total attendance was 1419, a new MathFest record! It was good to see many of you there. As usual, the Governors learned much information at the day-long Board meeting, of which I will provide a few highlights here. The strategic planning of the MAA continues. Cycle II is approaching its end, with the topics of Governance, Membership, and Students. We expect final reports soon. Cycle III will begin soon, with the subjects of Meetings, Sections, and STEM (Science, Technology, Engineering, and Mathematics) Issues. Project NExT is still going strong; with 84 Fellows this year, there have now been 1002 Fellows in the history of NExT. The Allegheny Mountain Section has

two new NExT Fellows: **Henry Escudro** (Juniata College) and **Carl Toews** (Duquesne University).

I want to remind everyone to check out MAA Online at <http://www.maa.org>. There is a lot of great material at the site, including monthly columns, mathematics in the news, links to MathDL, information about MAA programs and publications, and much, much more! I recently made MAA Online one of my home page options.

I want to encourage all of you to mark your calendars for **April 11-12, 2008**, the dates of the 75th Anniversary Meeting of the Allegheny Mountain Section, to be held at the University of Pittsburgh. We have great speakers planned, and we hope to see a record number of you in attendance! In the meantime, I hope to see many of you in sunny San Diego at the Joint Meetings in January.

Haven't Been to a Section Meeting in a While? Here's What You Missed Last Spring:

Happenings from the Spring 2007 Meeting

Robert Vallin, Slippery Rock University

The Allegheny Mountain Section Meeting at Mercyhurst was a rip-roaring success. Every moment seemed to have something going on that was fun and exciting. Over 150 people attended, with a vast majority of them using the form on our web site to register.

Before the official meeting, faculty involved in Section NExT attended their spring workshop. This year Dr. Rich Marchand of Slippery Rock University spoke to the group on his experiences coaching teams for the Mathematical Contest in Modeling (MCM). In the past two years, his teams have garnered 1 Outstanding and 2 Meritorious awards.

To open the meeting-proper, we were welcomed to the college by Dr. Thomas Gamble, President of Mercyhurst. Then the mathematics kicked off with **James Sellers** (Penn State, last year's winner of the Section's teaching award), who spoke on *Research in Integer Partitions: Alive and Well*. The house was packed as he took us on a tour of number theory and integer sequences.

At dinner that night, the section gave out two awards: **Michael Berry** received the Mentor Award, while **Ben Freed** took home the Service Award. Next was the Student Breakout Session: *Atypical Careers in Mathematics*. A strong crowd filled the auditorium to listen to C.J. Jaynes (Naval Captain), Jen Krause (Lawyer), and Tracy Moody (Doctorate in Physical Therapy candidate) talk about their math degrees and how they came to their current careers.

Thirty-two student speakers, representing twelve different schools, gave a total of 28 talks. The buzz was that the speakers were well-prepared and had interesting results. To give a few examples, titles included *Photomosaics*, *Hopf Bifurcations on a Scavenger/Predator/Prey System*, and *Curvature and Torsion in Random Knots*.

Day Two began cold and early with breakfast followed by the business meeting. Right after breakfast Deanna Haunsberger (Carlton College) gave her talk *Bright Lights on the Horizon*. Deanna spoke on the first ten years of the MAA journal

Math Horizons, reminiscing about her time as editor and sharing some of her favorite articles.

Following were twenty-two faculty talks. Just as for the student talks, there was a wide variety of good speakers. Subjects ran the gamut from research (*Uniform Integrability and Absolute Continuity with Respect to Lebesgue Measure*), to expository (*A Quick Guide to the Mandelbrot Set*), to teaching (*Using Clickers in Calculus: the Good, the Bad, and the Ugly*).

The meeting ended on a high note with a talk by Fred Roberts of Rutgers University and DIMACS (Discrete Mathematics and Theoretical Computer Science). He discussed linking graph theory and DNA sequences with his address *Consensus List Colorings of Graphs and Physical Mapping of DNA*.

Next year promises to be even better. The 75th anniversary of the Allegheny Mountain section will be feted at the University of Pittsburgh **April 11th and 12th**. Make plans to be there.



Opening Speaker James Sellers of Penn State

“Every moment seemed to have something going on that was fun and exciting.”

A Student's View of MathFest: Part I Emily Hendrickson, Slippery Rock University

MathFest is a very appropriate name for the event that I was fortunate enough to attend in early August of this year. It was not a conference like the Joint Meetings of the MAA/AMS in January was a conference; it was a festival of mathematics for those who love the subject. I found it to be far more student-friendly than the Joint Meetings, and I was often enthralled in the discussions. I had the opportunity to meet some new people, and to get to know some existing acquaintances a little better.

One of my biggest concerns going into this trip was the fact that I was going alone. Not just because I was flying alone, but also that I would not know any other students at the conference. This turned out to be a good thing, in my opinion. I was forced to meet new people, which turned out to be one of the best parts of the experience. My roommates on the SJSU campus were professors from other universities,

and it was great to hear about what they have done in their careers, because I need to decide soon what direction to take with mine. At the talks, I got to know two beginning graduate students whom I'd like to keep in touch with, because I think that they will do some interesting work in the future. They also filled me in about life as a graduate student.

Mathwise, the most exciting subject that I heard a talk on was the golden spiral and plants that grow in that pattern. The speaker specialized in mathematics that related to biology. He diagrammed how and why spiraling plants always seem to grow in this fashion, and why counting spirals always seems to produce numbers from the Fibonacci sequence. Golden proportions are one of my favorite aspects of math, not only because they are mathematically significant but also because they are also found in my other great loves, art and nature.

One of the most amusing parts of the conference was the public interview of Robert Schneider, the lead singer of *Apples in Stereo*. He is a musician who is a fan of mathematics and loves to explore math in his spare time. He's even made his own equation for a musical scale that depends on a logarithm and sounds ghostly when programmed into a keyboard. I saw him around at lots of the sessions, and surprisingly he remembered me. As a math student who loves music, I thought it was very refreshing to meet a musician who is a lover of math.

I had left for San Jose getting a little antsy and excited because I had not been around my own kind (mathematicians) much all summer long, and I came back feeling refreshed and ready to start a new semester.

What a great trip!

"It was a festival of mathematics for those who love the subject."

Undergraduates at a national meeting



A Student's View of MathFest: Part II

Andrew Perriello, Penn State—New Kensington

So, what are these math conferences really all about? I am quite sure that the first mental image to appear in everyone's mind is a large room filled to capacity with chalkboards and chalk-wielding professors, with no time or patience for any but the best and brightest mathematical minds. This comical daydream is rather far from what really goes on. The truth is that MathFest is really about just enjoying mathematics.

Each day there is a plenary talk delivered by an established mathematician. These tend to be the best presentations and have the most interesting material. There are also several invited lectures and contributed paper sessions each day. Also, as a student, you have the opportunity to present research of your own. This is

one of the most rewarding aspects of attending MathFest. It really gives you a feel for what being a mathematician is all about. In addition, you get to see what problems other students are working on, and, if your interests align with someone else, find a new collaborator for your research.

It may sound intimidating to present in front of an audience, especially in front of experienced mathematicians who will notice every slip-up. The reality is not nearly this harsh. It is important to keep perspective: if it took you three months of learning background material and another three months to prove a new result, the audience only has fifteen minutes to catch up to you. In other words, they are going to be far too busy trying to absorb the new mate-

rial to notice any kind of slip or mistake you might make. Besides, you get a complementary T-shirt for presenting, the promise of which completely overrides any sensation of stage fright.

MathFest isn't just endless lecture, however: there is a lot of downtime as well. This downtime offers a chance to wander around the exhibit hall, which usually features a huge selection of both textbooks and books on recreational mathematics, as well as other mathematically related items such as T-shirts, ties, and free coffee. It is also a good time for prospective graduate students to meet and talk with professors about graduate schools and how to get accepted. Of course, if you are feeling the urge, there are always plenty of places to sit down and prove a theorem or two; it is



Section members at dinner in San Jose

“The truth is that MathFest is really about just enjoying mathematics.”

Ohio Section Summer Short Course

The Ohio Section Summer Short Course, entitled "Study The Masters: Using Primary, Historical Sources In Teaching And Research", lead by Dr. Danny Otero of Xavier University and Dr. David Pengelley of New Mexico State University, will take place June 18-20, 2007 at Xavier University, in Cincinnati, Ohio. Participants in this three-day workshop will learn about teaching with primary historical sources in mathematics, and will be given the opportunity to prepare some primary sources of

their own choosing to use in their own classrooms. They will also see how reading, studying, and teaching with primary sources can lead to scholarship in history of mathematics. Registration is \$175.00. There is a limit of 25 participants and a deadline of May 19, 2008.

For more details or any questions please contact Danny Otero at otero@xavier.edu or (513) 745-2012.

To register send \$50.00 deposit to (made check payable to Xavier University):

Daniel E. Otero
Department of Mathematics
& Computer Science
Xavier University
Cincinnati, OH 45207-4441

Include contact information and home institution with your deposit.

An Undergraduate's Reaction to the 2007 CURM Conference Matt Katz, Juniata College

On November 9th and 10th, Pennsylvania State University hosted the first Conference for Undergraduate Research in Mathematics. Since my college is only 45 minutes away, my school's math club decided that we should go. So 5 students (including me) and 2 professors took the trip to Penn State for the weekend. I didn't really know what to expect. I was surprised when I got there to find out how many people were attending and where they had come from: some of the first people I met had driven over 7 hours from Indiana. During the conference there were two plenary speakers, George Andrews and Frank Morgan, and a plethora of students who had done research who gave talks and/or made posters.

Penn State is a very fun campus if you are a mathematician. The first thing you see across from the registration desk in McAllister Building is the

Octacube, about which we were able to hear a talk by its creator, Dr. Adrian Ocneanu. Also, after breakfast on the second day, Dr. Diane Henderson gave a tour of the Mathematics Department's Fluid Mechanics Laboratory. Here, she showed us some pretty interesting wave properties and discussed the history of the lab as well as some of the current work. It was a lot of fun to be able to play with the shallow water tank! Of course, when talking about Penn State, one cannot forget to mention the Creamery, at which there was an ice cream social the first night.

The second day, when all of the student talks were held, was as interesting as it was busy. Much to my happiness, the student presenters seemed, on average, comfortable in front of a group, which made the talks at the very least enjoyable. As far as accessibility, as a senior, I have had enough classes to have an idea of the

basic concepts presented in each talk. However, I heartily believe that even after taking just one year of calculus and linear algebra a freshman or sophomore could understand at least some of each talk. Of course, both plenary speakers were very entertaining and were very easy to understand for the level of the math they were talking about. The most fun that I had at the conference, though, was talking with other students about their interests in math: I not only made a bunch of new friends, but had my mathematical vigor renewed.

My only regret with this conference is that it wasn't around when I was a freshman. This was a great experience even as a senior and if I could, I would go every time it comes around. I recommend that any undergraduate students who are interested in a career in mathematics or even just have a healthy interest in math should attend.

"This was a great experience ...if I could, I would go every time it comes around."

Anticipating Frank Morgan's talk at the Penn State CURM Conference



American Mathematics Competition Winners

We have a number of bright rising stars in our area who aren't even in college yet: on the Spring 2007 AMC Exam, eleven students from western Pennsylvania earned very high scores and are listed below. The AMC (American Mathematics Competition) Exams are offered each spring to students in grades 8-12. Students choose one of three levels, depending on their backgrounds, and then sit for the exam at a local host site (the AMC organizers are always looking for more host institutions – see <http://www.unl.edu/amc/> for information).

This year over 413,000 students in over 5100 schools participated in the AMC Contests, and the average score was in the mid-60s out of 150. This means that the students listed below have

certainly risen to great heights mathematically. Bravo!

From the AMC 12 Exam:

Alecia Trollreddy, Grade 12 at Taylor-Allerdice, Pittsburgh, score 123.

Andrew Watkins, Grade 12 at Shadyside Academy, Pittsburgh, score 117

Barry Liu, Grade 12 at State College High School, score 114.

Hyun Kim, Grade 12 at North Allegheny High School, score 114.

Kevin Liu, Grade 10 at North Allegheny High School, score 114.

Bjorn Wastvedt, Grade 11 at Wilmington Area, New Wilmington, score 114.

John Conway, Grade 12 at Hempfield High School, score 114.

The AMC 10 Exam:

Junu Bae, Grade 7 at Winchester Thurston, Pittsburgh, score 144.

Bumjoon Kim, Grade 10 at Kiski School, Saltsburg, score 127.5.

Thomas Michael, Grade 10 at Hempfield High School, score 118.5.

John Subosits, Grade 10 at Upper St. Clair High School, score 117.

To colleagues in West Virginia: I do not have access to this information for your state. If you are involved with the AMC and can report on the high scorers from the “almost heaven” state, please let me know at lyn.miller@sru.edu!

The AMC organizers are always looking for host institutions. See the web site www.unl.edu/amc/ for more details.

Allegheny Mountain Section Governor Election

Because **John Bukowski's** term ends this year, it is time to elect a new Section Governor. The Executive Director of the MAA will conduct the election by a mail vote later this academic year. The chair

of the Allegheny Mountain Section (John Thompson) has appointed a nominating committee (John Bukowski, George Bradley, and Pam Wovchko), which will submit at least two nominations to

the national MAA office by November 26.

Look for further information in the spring.

Many thanks to [John Bukowski](#) for his fine service as our Section Governor.

Section NExT News

John Bukowski, Juniata College



Spring Workshop speaker
Rich Marchand of Slippery Rock

The Allegheny Mountain Section NExT program is our local version of Project NExT (New Experiences in Teaching), an MAA program for new or recent Ph.D.'s in the mathematical sciences. Fellows of Project NExT meet to discuss issues related to the profession, with an emphasis on the teaching and learning of undergraduate mathematics. Our very enthusiastic group of Section NExT fellows meets twice a year, once for a standalone workshop in the Fall, and for a workshop at the Spring Section Meeting.

This past April at Mercyhurst College, **Rich Marchand** (Slippery Rock University) gave a very interesting presentation on the subject of mathematical modeling as well as his experiences in advising his highly successful teams in the annual Mathematical Contest in Modeling. Recently, on September 15, we met at the University of Pittsburgh for a day of "Using Technology in the Classroom." Five speakers gave presentations on a di-

verse set of topics: **Jon Beal** (Clarion University), Voyage 200 and TI-89 projects; **Carolyn Cuff** (Westminster College), Fathom; **Mike McConnell** (Clarion University), Tablet PC and Flash movies; **Beverly Michael** (University of Pittsburgh), Homework Tutor and Smart Board; **Kim Roth** (Juniata College), Clickers.

Counting the presenters, there were 29 people in attendance at the Pittsburgh workshop. We welcomed our two new national Project NExT Fellows, **Henry Escudro** (Juniata College) and **Carl Toews** (Duquesne University). Including these two, there were ten new Section NExTers in attendance (a new record!) – the others were **Alex Wolfe** (Duquesne); **Adam Combs**, **John Hoggard**, and **Emily Sprague** (Edinboro University); **Jeonghun Kim** and **Joe Wu** (Thiel College); **Adam Roberts** (Clarion) and **Marcella Isacco** (Clarion and Karns City High School).

We look forward to another exciting workshop at the 2008 spring meeting at the University of Pittsburgh! Information about Section NExT can always be found at our website, <http://faculty.juniata.edu/bukowski/next>. Questions and suggestions regarding Section NExT should be directed to John Bukowski (bukowski@juniata.edu) or Barbara Faïres (faïres@westminster.edu).

"Fellows of Project NExT meet to discuss issues related to the profession, with an emphasis on the teaching and learning of undergraduate mathematics."

Section NExT is a group for junior faculty in their first four years. See the Allegheny Mountain Section NExT web site at faculty.juniata.edu/bukowski/next/index.htm for all kinds of fantastic information.

Section Teaching Award: Call for Nominations

Nominations for the 2008 Allegheny Mountain Section Award for Distinguished College or University Teaching of Mathematics are now being solicited.

Each year, the Allegheny Mountain Section of the MAA recognizes one of its own for Distinguished College or University Teaching of Mathematics. The awardee is honored at the spring meeting of the Section and is widely recognized and acknowledged within the Section. The awardee is also the official Section candidate for the national MAA Deborah and Franklin Tepper Haimo Awards for Distinguished College or University Teaching of Mathematics. Recent recipients of the award include:

2006: **James Sellers**, Penn State University

2005: **James Reynolds**, Clarion University

2004: **Michael Mays**, West Virginia University

2003: **Michael Botsko**, Saint Vincent College

2002: **Barbara Faires**, Westminster College

2000: **David Falvo**, Penn State Behrend

1999: **Warren Hickman**, Westminster College

Anyone is entitled to make a nomination, and we urge you to do so if you have someone eligible and qualified in your department in order that your candidate has an opportunity to be consid-

ered for the Section Award and, if so selected, also for the national award. Even if not selected this year, it is a great honor for someone to have been nominated, your department will have demonstrated its commitment to excellence in teaching, and the work done in preparing a nomination folder for your candidate is not wasted since your candidate can be nominated again in a future year. Self-nomination is not permitted.

Eligibility:

*) College or university teachers assigned at least half time during the academic year to teaching a mathematical science in a public or private college or university (from two-year college through teaching at the Ph.D. level) in the Allegheny Mountain Section of the MAA. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirements in the previous year.

*) At least five years teaching experience in a mathematical science

*) Membership in the Mathematical Association of America

Guidelines for Nomination: The nominees should:

*) Be widely recognized as extraordinarily successful in their teaching(1)

*) Have teaching effectiveness that can be documented

*) Have had influence in their

teaching beyond their own institutions (2)

*) Foster curiosity and generate excitement about mathematics in their students.

(1) "Teaching" is to be interpreted in its broadest sense, not necessarily limited to classroom teaching (it may include activities such as preparing students for mathematical competitions at the college level, for example, the Putnam Prize Competition or the Mathematical Contest in Modeling, or attracting students to become majors in a mathematical science or to become Ph.D. candidates).

(2) "Influence beyond their own institution" can take many forms, including demonstrated lasting impact on alumni, influence on the profession through curricular revisions in college mathematics teaching with national impact, influential or innovative books on the teaching of college mathematics, etc.

To nominate someone for this award, please see the full instructions for completing a nomination packet at www.math.psu.edu/sellersj/allegHENYMTN/nom2.pdf. The Nomination Form can be found at www.math.psu.edu/sellersj/allegHENYMTN/nomination.pdf. Please follow all instructions precisely to assure uniformity in the selection process both at the Section and national levels.

Please send three copies of the nomination packet to:

Barbara Faires
Department of Mathematics
and Computer Science
Westminster College
New Wilmington, PA 16172

Materials must be received no later than February 2, 2008.

The Section Selection Committee will choose the Section awardee and communicate its selection to the national MAA secretary no later than March 1 so that the national Committee can then make its selections.

We look forward to your participation in this exciting MAA venture of taking substantive action to honor extraordinarily successful teaching. We want to see such teaching recognized at all post-secondary school levels. We depend on you to help us identify those who merit such recognition.

"It is a great honor for someone to have been nominated."

Section Mentoring Award: Call for Nominations



2007 Mentoring Award winner Mike Berry of West Virginia Wesleyan

For the past few years, the Allegheny Mountain Section of the MAA has awarded the Distinguished Faculty Mentor of Undergraduate Mathematics Students Award. Awardees have made significant contributions to the development of undergraduate students in mathematics as scholars. This includes, but is not limited to, encouraging student participation in MAA activities and advising students who make presentations at the Section meetings. Recent recipients of the award include:

2007: **Mike Berry**, West Virginia Wesleyan College

2006: **Eric Rawdon**, Duquesne University

2005: **Robert Vallin**, Slippery Rock University

2004: **Lyn Miller**, Slippery Rock University

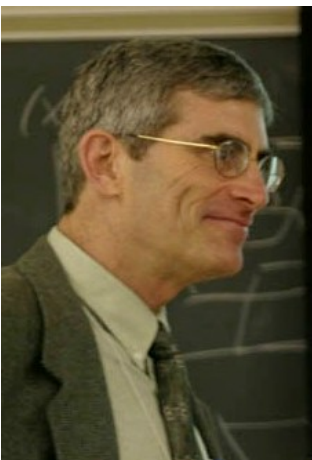
2003: **Francisco Alarcón**, Indiana University of Pennsylvania

We are soliciting nominations for this award from now through March 30, 2008. A nominee should have made significant contributions to the development of undergraduate mathematics students as scholars. This includes, but is not limited to, encouraging student

participation in MAA activities and advising students who make presentations at the Section meetings. Please send your nomination with a description of how the nominee meets the criteria to:

Mike Berry
Department of Mathematics and Computer Science
West Virginia Wesleyan College
121 Christopher Hall
Buckhannon, WV 26201

Section Service Award: Call for Nominations



2007 Service Award winner Ben Freed of Clarion

The criterion for the Annual Allegheny Mountain Section Service Award is a consistent record of excellence in service to the section over a period of time. The Section announces the winner of this award each year at its annual meeting in the spring. Recent recipients of this award include:

2007: **Ben Freed**, Clarion University

2006: **Ron Harrell**, Allegheny College

2005: **Dave Wells**, Penn State New Kensington

2004: **George Bradley**, Duquesne University

2003: **Charles Cable** (Emeritus), Allegheny College

2003: **Tom Keagy**, Duquesne University

2002: **Melvin R. Woodard**, Indiana University of Pennsylvania

In the context of this award, "service" is interpreted in a broad sense to include holding office, coordinating contests, organizing sessions, acting as a panelist, speaking at sessions,

acting as the coordinating host for a meeting, or participating in any other activity that contributes to the well-being of the Section.

George Bradley serves as Chair of the Service Award Committee. **Any member of the Section is welcome to forward nominations to him by March 15, 2008.** His contact information is as follows:

George Bradley
Department of Mathematics
Duquesne University
Pittsburgh, PA 15282

News from the Campuses

Clarion University Submitted by Ben Freed

We have hired a number of part-time temporary faculty to teach for us, nine in all. They are **Phyllis Howard**, **Marcy Isacco**, **Tim LaVan**, **Wendy McKain**, **Brad Wagner**, **Josh Williams**, **Paula Williams**, **Bill Wolbert**, and **Kathy Wright**. **Steve Gendler** and **Dave Hipfel** are also back teaching for us after a year on sabbatical leave. Steve took some online statistics classes, attended the United States Conference on the Teaching of Statistics (USCOTS), and participated in a workshop on teaching the first statistics course. Dave took and passed the actuarial exam on Modeling Life Contingencies. He only needs to pass two more exams to become an Associate of the Society of Actuaries. **Elaine Carbone** is on sabbatical leave this fall 2007 semester, busy writing a new book about mathematics for elementary teachers. **Mike McConnell** and **Jon Beal** made presentations at the fall Section NExT meeting held at the University of Pittsburgh; the theme of the meeting was teaching with technology.

All of us at Clarion were saddened when **Jim Reynolds** announced his retirement this past June. Many of you may recall that he was the Allegheny Mountain Section's 2005 Distinguished Teaching Award winner. He is also co-author, with **Ron Harshbarger**, of the popular text

book Mathematical Applications for the Management, Life, and Social Sciences, now in its 8th Edition. Jim had taught at Clarion since 1991. Prior to coming to Clarion he had taught a year at Penn State-Erie (1969-1970), and 21 years at Penn State-Beaver (1970-1991). One would think that after 38 years of teaching enough is enough. Not so for Jim. Looking for a milder climate he and his wife Janie moved to South Carolina, where he is currently teaching mathematics at the University of South Carolina at Beaufort.

Duquesne University Submitted by George Bradley

Dr. John Kern was the sole recipient of the 2007 President's Award for Excellence in Teaching, the top award for teaching at Duquesne.

Dr. Patrick Juola and **Dr. Jeff Jackson** have been awarded grants for over \$200,000 each by the National Science Foundation. Both grants will support student research over the next three years.

We're very pleased to welcome to the mathematics faculty **Dr. Carl Toews**, who earned his PhD at the University of Virginia and has subsequently worked at MIT's Lincoln Laboratory and at the Institute for Mathematics and its Applications (IMA) at the University of Minnesota. He comes to us highly recommended for both his teaching

and his research potential.

Several faculty members and students were awarded internal grants during Spring 2007: **Dr. John Fleming** and student **Chase Smith** will work on the project "Efficient Computation of Electrostatic Potential for use in Molecular Dynamic Simulations." **Dr. Lili Shashaani** and student **Emily Matthews** are describing findings related to Dr. Shashaani's spearheading of the Diversity in Computational Technology program at Duquesne since 2001. Undergraduates **Nathan Donahue-Babiak** (advisor: **Dr. Doug Landsittel**), **Jeromy Sivek** (advisor: Dr. John Kern), and **John Noecker** and **Charles Liddell** (both advisor: Dr. Patrick Juola) received funding as well.

Matthew Fredrikson, a double major in mathematics and computer science, and Dr. Patrick Juola submitted a patent application entitled "Detecting Malicious Code Using Behavioral Anomalies" in September 2006. The invention began with a project assigned by Dr. Juola in his Computer Security course.

Juniata College Submitted by John Bukowski

Our department is happy to welcome back **Jerry Kruse** and **Cathy Stenson** from sabbatical. During his sabbatical, Jerry reworked our Quantitative Methods course, which is now activity-based.

Early feedback indicates that the students value the new style. In addition, we have included pre- and post-assessments of student skills and attitudes. **Henry Escudro**, in his second year at Juniata, has been selected as a 2007-2008 Fellow of Project NExT. **Sue Esch** has officially retired after 32 years in the department. We are getting adjusted to life without her! **John Bukowski** has been named College Organist, which means that he plays for all the official college ceremonies.

Last February, we served as a host site for the MAA American Mathematics Competitions. Eighteen area high school students took the AMC-10 or AMC-12, and **Cathy Stenson** gave a talk on the stable marriage problem. It was a great success all around, and we look forward to doing it again this year!

University of Pittsburgh-Titusville Submitted by Paul R. Bouthellier

Dr. Charles Choo and **Dr. Paul Bouthellier** of the Physics and Mathematics Departments, respectively, recently helped write a nanotechnology grant proposal with principal investigators **Dr. Ping Furlan** of the Chemistry Department and **Dr. Saeed Dubas** of the Engineering Department. Drs. Choo, Dubas, and Bouthellier are also working on the papers "Efficient, High Order Scheme for the Triangle Cavity Problem" and "Stability of the Up-

News from the Campuses (continued)

Wind Scheme.” Dr. Dubas recently presented the talk “A Submicron Technology” at UPT, and Dr. Choo will present a talk in the area of Quantum Mechanics in the near future.

Dr. Bouthellier has had two talks accepted for the upcoming Joint Meeting of the MAA and AMS in San Diego and has submitted two papers for the 20th International Conference on Technology in College Mathematics (ICTCM). Dr. Bouthellier is also the web master of the Nanotechnology Initiative web site and the Students in Free Enterprise web site at UPT.

Saint Vincent College
Submitted by Michael W. Botsko

Dr. Daniele Arcara, who has joined the Department in the fall of 2006 with an interest in

Algebraic Geometry, has taken a one week trip to the University of Utah to work with Dr. Bertram on a joint paper. In addition he and Dr. Y. P. Lee published a paper titled “Tautological equations in genus 2 via invariance conjectures”. Finally he and Dr. Lee submitted a paper to the Canadian Journal of Mathematics and another paper to Compositio Mathematica.

Dr. Michael Botsko, chair of the Mathematics Department, has had the article “Exactly Which Bounded Darboux Functions Are Derivatives?” published in *The American Mathematical Monthly*. He has also had several problems published in Volume 80 Nos. 1-3 of *Mathematics Magazine* during the early part of 2007.

Washington and Jefferson College
Submitted by Dean Morrow

The W&J Mathematics Department welcomed its newest member this fall. Dr. Ryan Higginbottom was hired as Assistant Professor of Mathematics. He obtained his Ph.D. in Algebraic Topology from the University of Virginia and then held a two year visiting Assistant Professor of Mathematics position at Kalamazoo College in Kalamazoo, MI, before coming to W&J.

West Virginia University
Submitted by Michael Mays

Henry Gould has retired after 49 years of service, but is still quite active as Profes-

sor Emeritus. He is still working in his office as editor of several journals, writing and publishing research papers on combinatorics. Gould is collaborating with Eiesland Visiting Professor Jocelyn Quaintance. They have already written seven joint papers. Sam Nadler also retired, and is visiting the University of Toledo this year. Margie Darrah has joined the faculty this year. Laura Pyzdrowski received the Distinguished Service Award from WVCTM. WVU will be hosting the MIGHTY Conference in graph theory in April.

**Don't see your institution listed?
Ask your MAA liaison to send your news to the editor at
lyn.miller@sru.edu.**



**If you have photos of Section activities or members that can be used in the newsletter, please send them to the editor at
lyn.miller@sru.edu .**

New Online-Only Allegheny Mountain MAA Newsletter (for those who wish it)

Colleagues,

In an effort to serve you better and provide more timely news, the Allegheny Mountain Section of the MAA has decided to pursue an online-only version of our semiannual newsletter *for those who wish it*.

In addition to usual items from our Section web site, the newsletter solicits additional articles and announcements pertinent to the members of the Section. It will still be published twice a year, and an email announcement and a reminder postcard will be sent alerting you to its availability.

If you prefer to continue receiving your own individual printed copy as well, please cut off this form and return it to the editor at the address given. Your receipt of the Allegheny Mountain Section Newsletter will continue uninterrupted.

Regardless of individual member preferences, one printed copy of the newsletter will be sent to the MAA Liaison or other contact person of each department in the Section, for posting in a central location. This will allow us to get the news out to members and non-members alike.

Be aware that the Section web site (<http://www.math.psu.edu/sellersj/alleghenymtn/>) is a valuable source of last-minute information for our annual Spring Section meeting, and that it sometimes contains announcements that are not available when the newsletter goes to press. It's always a good idea to check it just prior to the Spring Meeting for any changed or new information.

Thank you for your attention, and for your help in taking this new step for the Section.

Lyn Miller, Allegheny Mountain Section Newsletter Editor
Slippery Rock University

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We're on the web!
[www.math.psu.edu/sellersj/
alleghenymtn/](http://www.math.psu.edu/sellersj/alleghenymtn/)

Spring Meeting:

April 11-12, 2008
University of Pittsburgh

Details inside!

Plus:

**New newsletter format —
See inside back cover for details.**